

Precision Pulmonary Diagnostic, Avastra Sleep Centers join forces

New alliance greatly expands PPD's growing network of accredited labs

Precision Pulmonary Diagnostics (PPD), creators of a sleep apnea detection and treatment program targeted toward the commercial vehicle industry, recently announced a strategic alliance with Avastra Sleep Centers Limited, the second largest sleep diagnostic medical group in the nation. The agreement will greatly expand PPD's network of diagnostic labs and enable the company to better serve its growing list of trucking company customers.

"This strategic alliance with Avastra is the next step in our growth and will allow PPD to provide its sleep apnea testing, education, equipment and support services for trucking companies and their drivers in more locations," states Dr. Mark B. Berger, MD FCCP and president of Precision Pulmonary Diagnostics. "PPD will continue to use its existing network of accredited independent labs in Houston, Dallas, Phoenix, Indianapolis, Chicago and Monroeville, PA. Our new alliance with Avastra means that we and our customers will have the flexibility to use facilities all over the country."



Avastra Sleep Centers is one of the fastest-growing sleep diagnostic companies in the United States with a current total of 33 separate diagnostic sleep centers in 13 different states. Within the past year, Avastra has acquired six sleep diagnostic companies, including Pacific Sleep Medicine in the west, SomniSleep Group in the Midwest, and various sleep diagnostic operations in Seattle, Portland, Salt

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SLEEP LAB LOCATIONS

In addition to Avastra's locations, PPD has partnered with labs in:

- Houston, Texas
- Dallas, Texas
- Phoenix, Ariz.
- Chicago, Ill.
- Indianapolis, Ind.
- Memphis, Tenn.

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EDITOR'S NOTE

Sleep Well Work Better is a production of Precision Pulmonary Diagnostics, specializing in premium news and analysis on sleep apnea for the commercial trucking industry, and is published 4 times a year.

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Precision Pulmonary Diagnostics (PPD), provides professional screening for drivers who are at risk for sleep apnea. This is a HIPPA-compliant, online tool customized to a company's requirements.

Once a driver has PPD will provide local diagnostic services with the ease of Web-based scheduling and quick, reliable turn-around — from diagnosis to treatment.

Drivers who require treatment will be fitted for and provided with a CPAP mask, flow generator, and heated humidifier for nightly use.

In order to ensure drivers are using their masks correctly, PPD has partnered with a leading manufacturer of CPAP equipment, masks, and the only provider of a patented wireless compliance monitoring system.

The wireless compliance monitoring system provides daily information of CPAP use, efficacy, and allows real-time troubleshooting of any problems your drivers may be experiencing. With this data, we can enhance your drivers' CPAP acceptance and long-term compliance. In short, our protocols can maximize your results and your return on investment.

Dear Readers,

Persons with obstructive sleep apnea (OSA) have a greater rate of motor vehicle accidents than those without OSA. Multiple studies have quantified this excess risk as anywhere from 2 to 7 times greater than drivers without OSA. Continuous Positive Airway Pressure (CPAP) treatment lowers this accident risk back to normal. A recent study published in the British medical journal Thorax suggests that this greater motor vehicle accident risk occurs in all severities of OSA – even in mild cases. Dr. Alan Mulgrew of the University of British Columbia, Vancouver, studied 783 adult patients who were referred for possible OSA. He found that patients with OSA had between 2 and 2.6 times greater risk for motor vehicle crashes and the severity of those crashes was 3 to nearly 5 times greater than crash severity in non-OSA drivers. Interestingly, the greatest increased risk for a motor vehicle crash occurred in drivers with mild OSA.

Currently, Schneider National drivers diagnosed with sleep apnea of any severity are required by their employer to be treated for OSA. Preventive crash data from Schneider National demonstrates that the accident rate in CPAP-treated OSA drivers is reduced 30% from pre-CPAP treatment and the average cost of those preventive accidents is reduced by 48%.

PPD is committed to our client's most valuable resource – their drivers. Effective therapy for OSA reduces the risk for motor vehicle accidents, adverse cardiovascular events, and stroke. It also improves blood pressure control in those with high blood pressure and helps with blood sugar control in diabetics.

All of us at PPD stand ready to help you become and remain compliant with therapy for OSA.

Safe Travels,

Mark B. Berger, MD FCCP

President
Precision Pulmonary Diagnostics LLC

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CPAP machine may lower blood pressure

Treatment of obstructive sleep apnea (OSA) with continuous positive airway pressure (CPAP) may also lower blood pressure among hypertensive adults, according to researchers in Spain, who recently presented his findings at the American Thoracic Society's 2008 International Conference.

The study included 394 consecutive patients with high blood pressure and non-sleepy OSA — those with mild enough OSA that their daytime alertness was unaffected. They were randomized to receive either CPAP or no treatment.

Blood pressure was measured at three-, six- and 12-month follow-ups after their baseline evaluation. The researchers found that, on average, patients who used the CPAP machine experienced an average 2mmHg drop in both systolic and diastolic blood pressure at the end of the year when com-



pared to patients who did not use the CPAP machine.

"This is the largest study trial in the field and it shows that CPAP has an effect on cardiovascular outcomes regardless of symptoms," said Ferran E. Barbé, M.D., who headed the research. "This suggests that CPAP can be used

to treat the symptoms of high blood pressure."

The patients for whom the effect was most produced used the CPAP machine for more than five hours a night. "The mechanism by which CPAP is able to effect a drop in blood pressure is complex and it is mainly related to a reduction in sympathetic tone and oxidative stress," Barbé said. Although researchers do not yet know whether CPAP should be recommended for all OSA patients with high blood pressure and without daytime sleepiness, barring contraindications, the results point to the need for further study of the cardiovascular benefits of CPAP in OSA patients.

"In the future, we would like to know the effects of CPAP treatment on other cardiovascular outcomes such as stroke, myocardial infarction or heart failure," Barbé said.

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Lake City and Phoenix, as well as upstate New York and the west coast of Florida.

"At Avastra, our Board Certified Sleep Specialists are committed to providing the highest quality of medical care to all of our patients," says Steven Hull, MD and CEO of Avastra Sleep Centers, "in all aspects of the diagnosis and treatment of sleep disorders." Dr. Hull adds, "With our newly-formed strategic alliance with Precision Pulmonary Diagnostics, we are able to further expand our expertise to an extremely important patient population—truck drivers who

travel the roads across our nation. With the PPD program in place, we not only provide expert medical care, but we are able to better protect the safety of everyone who uses our roads."

"Ensuring that drivers receive appropriate treatment will not only help improve their overall health, it's also good news for everyone who shares the road."

-Mark Berger
President, PPD

Avastra's Chief Medical Officer, Milton K. Erman, MD says, "The issues of transportation safety, especially among truck drivers, have always been a high priority for our sleep specialists at Avastra. Truck drivers need to understand that if it turns out that they do have a sleep disorder, such as Obstructive Sleep Apnea, or OSA, they are also likely to suffer from a variety of associated health problems,

like excessive daytime sleepiness, high blood pressure, cardiovascular disease, obesity, and even diabetes. By diagnosing and treating their OSA, we can help truck drivers improve their overall health by reducing the likelihood or severity of these associated medical conditions— as long as they comply with their treatment."

"PPD's new strategic alliance with Avastra," Dr. Berger adds, "provides our trucking company clients with a larger network of facilities at which they can take advantage of our unique and effective sleep apnea detection and treatment programs. Ensuring that drivers receive appropriate treatment will not only help improve their overall health, it's also good news for everyone who shares the road."

New Study: Short Sleep Times Linked To Obesity

A new study demonstrates an association between short sleep times and obesity in patients with chronic medical problems.

The study, "Short Sleep Times Predict Obesity in Internal Medicine Clinic Patients" by the Journal of Clinical Sleep Medicine, surveyed 200 patients attending internal medicine clinics to determine their sleep habits, lifestyle characteristics and medical diagnoses.

According to the results, subjects with short sleep times (less than seven hours) had a significantly increased likelihood of obesity defined by a body mass index greater than 30 kg/meters when compared to the reference group of eight to nine hours. Other factors predicting obesity in these clinic patients included young age (18 to 49 years), not smoking, drinking alcohol, hypertension, diabetes and sleep apnea.

"Our study demonstrates that short sleep times have an association with obesity in adults with chronic medical problems and that chronic disease and attendant therapies and/or changes in physical activities do not obscure this relationship," said Kenneth Nugent, MD, of Texas Tech University, lead author of the study. "This study suggests that adults should sleep eight to nine hours per night to maintain optimal weight. Whether or not manipulating sleep time in adults will prevent additional weight gain or facilitate weight loss is unclear. This question will require therapeutic trials in which sleep hygiene is addressed during weight loss studies."

Did you know....

Untreated, short sleep times can also cause high blood pressure and other cardiovascular diseases, memory problems, impotency, and headaches?



A strong relationship exists between weight and obstructive sleep apnea (OSA), in that your neck gets thicker as you gain weight. This increases the level of fat in the back of the throat, narrowing the airway. With more fat in the throat, your airway is more likely to be blocked.

People with OSA are often obese and have a neck size of more than 17 inches. Many people with OSA also have high blood pressure.

It is estimated that four percent of men and two percent of women have OSA, and millions more remain undiagnosed.

First introduced as a treatment option for OSA in 1981, continuous positive airway pressure (CPAP) is the most common and effective treatment for OSA. CPAP provides a steady stream of pressurized air to patients through a mask that they wear during sleep. This airflow keeps the airway open, preventing the pauses in breathing that characterize sleep apnea and restoring normal oxygen levels.

Source: American Sleep Apnea Association

Weight Loss and Sleep Apnea

A known fact is that sleep apnea can be weight related. What can cause this is additional fat around the neck which contributes to a narrowed airway which leads to obstructions in breathing while asleep.

For individuals with mild sleep apnea, losing weight can help. The problem? When you are chronically fatigued, you do not have the energy required to become more active to help you lose weight.....it can be a catch 22. Many drivers also eat to stay awake. Because weight loss takes time, the Continuous Positive Airway Pressure (CPAP) machine remains the gold standard in treating sleep apnea.

Many of the drivers using CPAP have now reported significant weight loss now that they are treating their sleep apnea.

Sleep apnea can occur in thin people as well and we have seen many drivers where this has occurred. Because the airway can close for a number of reasons to include age, hereditary tendencies and not just excess weight, CPAP is very helpful. While it is critical to your overall health to lose weight, talk to your physician before beginning a weight loss or exercise program.



Sleep apnea to blame for ED?

Men who have a restless sleep may have better sex lives, according to a study by the Weill Medical College of Cornell University in New York City.

The study claimed that men who suffer from sleep apnea also are plagued by erectile dysfunction. The more severe the case of sleep apnea, the more serious ED issues, the study said.

The study of 50 men showed that 60 percent had abnormal sleep patterns. Of those men, 80 percent had problems having or maintaining erections.

While the study did not conclude why sleep apnea and ED are related, Dr. Charles Atwood, an associate director of the University of Pittsburgh Medical Center's Sleep Medicine Center, said that sleep apnea interrupts REM sleep, which is normally a time when men experience erections. Lower amounts of REM sleep mean decreased erections.

REM erections are necessary for men to maintain healthy sexual function, he said.

The good news? Men who obtain treatment for sleep apnea often experience improvements in sexual function.

FMCSA updates

MRB reviews DOT sleep apnea screening

The Federal Motor Carrier Safety Administration (FMCSA) Medical Review Board met Jan. 28 in Salt Lake City to review the report of the Medical Expert Panel (MEP) on Obstructive Sleep Apnea.

The evidence report on OSA concluded that drivers with OSA are at an increased risk of motor vehicle crashes. In drivers with OSA, certain characteristics were found to have a correlation with crash risk – daytime sleepiness, severity of the disorder, BMI and oxygen desaturation. Furthermore, individuals with OSA are not aware of the extent to which they are affected by daytime sleepiness. Continuous positive airway pressure (CPAP) was found to be the only reliable treatment method shown to reduce crash risk....treatment can be effective in as little as 1 day and maximal effectiveness can be seen at about 1 week. Missing only 1 night of treatment can result in decreased simulated driving ability and increased daytime sleepiness.

The MEP recommended that a diagnosis of OSA should preclude unconditional certification but conditional certification would be possible. Drivers should be disqualified if any one of the following conditions is met:

- Excessive daytime sleepiness or a crash resulting from falling asleep
- Stops breathing 20 times an hour until compliant with CPAP
- Non compliant with treatment

Conditional certification was advised if a driver had a BMI of greater than or equal to 33. The driver could be given a 1 month certification pending a sleep study. If diagnosed with OSAwould need to be adequately treated for at least 1 week and then could be certified for a month.

Then, if compliant, could be certified for a month.

Note, as Precision Pulmonary Diagnostics is following the drivers for compliance, while it is necessary for the driver to begin using CPAP right away, and the data is readily available on the CPAP Restraxx and/or data card, drivers are currently NOT being taken out of service provided they are compliant with treatment (defined as 4 hours of use in every 24 hour period). A compliant driver could be certified for one year.

The MRB voted that BMI of greater than or equal to 30 may require drivers to undergo evaluation. With the PPD screening survey, 23% of drivers had a BMI of less than 30 that tested positive for sleep apnea, so clearly other risk factors are involved in determining if a driver is at high risk for the disorder.

What is your Snore Score?

Take this quiz from the American Sleep Apnea Association to see if you suffer from sleep apnea.

1. Are you a loud and habitual snorer?
2. Do you feel tired and groggy when you wake up?
3. Are you often sleepy during waking hours or could fall asleep easily?
4. Are you overweight and/or have a large neck?
5. Have you been observed choking, gasping or holding your breath during sleep?

If you answered yes to any of the above questions, you may be at risk. Contact your physician or call Precision Pulmonary Diagnostics for further tests or to schedule an appointment at one of their sleep labs.